



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/169,060	10/09/98	MUELLER	10191/822

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MM71/1201

EXAMINER
MEDLEY, P

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 12/01/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/169,060

Applicant(s)

MUELLER ET AL.

Examiner

Peter M Medley

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-18,20-24 and 27-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-18,20-24 and 27-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 1998 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second transistor including an interrupter connected parallel to the controlled transistor bridge of claims 11, 12, 23, 24, 35, and 36 and the transistors coupled in series of claim 37 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 11, 12, 23, 24, 32, and 34-37 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claims 11, 12, 23, 24, 35, and 36, there is no support in the specification for a device for controlling a generator with a second transistor including an interrupter connected parallel to the controlled transistor bridge.

With respect to 32 and 34, the specification does not provide support for a further semiconductor **switching** device.

Art Unit: 2834

With respect to claim 37, the specification does not support transistors coupled in series.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 27 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 27 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: relationship between the controlled transistor bridge, the plurality of first transistors, and one of a second transistor is not clear.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 29 is rejected under 35 U.S.C. 102(b) as being anticipated by Hamelin et al.

Art Unit: 2834

Hamelin discloses a rectifier and a plurality of transistors in **fig. 1**. The reference discloses in the discussion of **fig. 2** in the last paragraph of column 8 that the transistors act as a step-up converter.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-6, 8-10, 13-18, 20-22, 30, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamelin et al in view of Balogh.

Hamelin et al discloses a device and method for controlling a generator comprising a diode bridge and transistor **T** in **fig. 11**. The reference also teaches that the signal to the transistor can be varied in lines 25-40 of column 7. The reference also discloses a diode **D7**. Hamelin discloses a rectifier and a plurality of transistors in **fig. 1**. The reference discloses in the discussion of **fig. 2** in the last paragraph of column 8 that the transistors act as a step-up converter.

The reference does not disclose a smoothing capacitor or insulated gate bipolar transistor.

Balogh discloses that a "decoupling" capacitor **C** is used at the voltage detection point. One of ordinary skill in the art would recognize this as a smoothing capacitor. Balogh discloses using a smoothing capacitor for the purpose of isolating the load from fluctuations in the generator. It would have been obvious to one of ordinary skill in the

Art Unit: 2834

art to use a smoothing capacitor for the purpose of isolating the load from fluctuations in the generator.

The court has found that the selection of a known material based on its suitability for its intended use is obvious. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). It would have been obvious to one of ordinary skill in the art to use insulated gate bipolar transistors for the purpose of utilizing their known electrical properties.

Response to Arguments

9. Applicant's arguments filed 2 August 2000 have been fully considered but they are not persuasive.

With respect to claim 29 and the Hamelin et al reference, the Applicant argues that the reference does not show a step-function. Examiner disagrees: one of ordinary skill in the art would recognize that the configuration does provide a step-up function. The Comprehensive Dictionary of Electrical Engineering has been provided to show why the chopping and clipping disclosed in column 8 of the reference is for a step-up function.

With respect to claims 1-6, 8-10, 13-18, 20-22, and 30 and the Balogh reference, the Applicant argues that Balogh does not disclose a smoothing capacitor, but then the Applicant states that the function of the capacitor in Balogh is the same as a smoothing capacitor and then disputes that it is a smoothing capacitor. It is again suggested that the Applicant consider the Satoh et al and Balogh references.

Art Unit: 2834

Next, Applicant argues that a prima facie case for obviousness has not been provided. Examiner disagrees. Applicant is pointed to paper #9, Office Action dated 19 April 2000, to section 7 where a rejection based on the guidelines for establishing obviousness in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966) is given. The Balogh reference was only used because the use of Official Notice was traversed. A prima facie case has been established. Applicant also uses the *EMS* case to argue that Balogh must show that a smoothing capacitor must necessarily result from the teachings of Hamelin. The Examiner has read *EMS* and does not see how it is at all applicable in the present case: the court holds that to prove a anticipation under § 102 *EMS* must prove that the limitation is necessarily present in the disclosure. If Applicant disagrees with this, the Examiner would find it very helpful if he pointed out the line and page number of the relevant material in the provided copy of the case. In the interest of advancing prosecution, the rejection has been changed to include the Balogh reference instead of maintaining the Official Notice.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant has been provided with the excerpts of the Comprehensive Dictionary of Electrical Engineering. In the interest of advancing prosecution, Applicant is encouraged to consult this book or another similar book in the future.


Art Unit: 2834

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter M Medley whose telephone number is 703-305-0494. The examiner can normally be reached on Monday-Thursday 7:30AM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3432 for regular communications and 703-305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

PM
November 29, 2000


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